

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number  
**WO 2005/084337 A3**

(51) International Patent Classification<sup>7</sup>: **F16L 25/00**,  
35/00

(21) International Application Number:  
PCT/US2005/006755

(22) International Filing Date: 2 March 2005 (02.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/549,183 2 March 2004 (02.03.2004) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

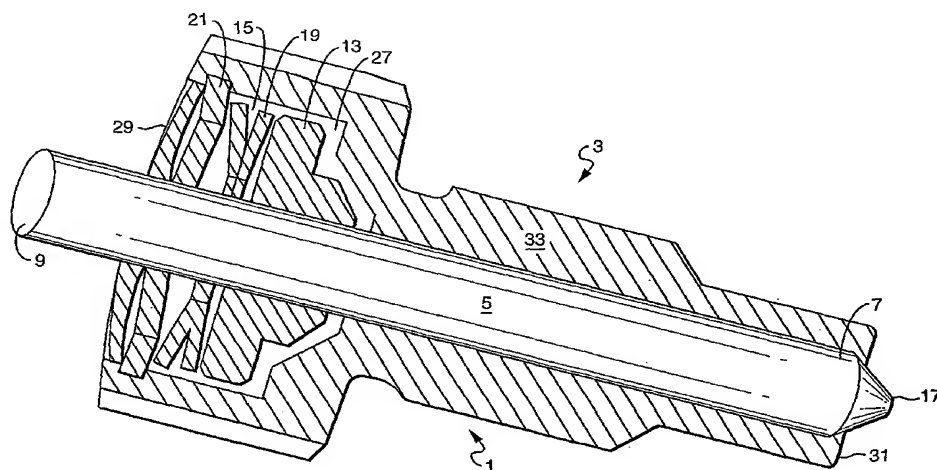
**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
12 January 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A SELF-SETTING HIGH PRESSURE FITTING



(57) Abstract: A coupling element (1) comprising a male sealing element (5) is disclosed herein. The male sealing element comprises a first end (7), second end (9), and a longitudinal axis extending between the first and second end. The coupling element is housed within a nut (3). In one aspect, the male sealing element has a generally cylindrical shape. Also, the male sealing element defines a fluid passageway therethrough for the transmission of fluid. The male sealing element is secured to a ferrule (13) which is located within a cavity of the nut. The first end of the male sealing element defines a conical sealing surface. In one aspect, the male conical sealing surface (17) mates with a female sealing element (23) which has a receptacle that is defined by a nearly complementary conical geometry. In this aspect, the male conical sealing surface has a mismatched angle when compared to the complementary conical female sealing element. The coupling element also has a biasing element (19) disposed between a retaining ring and the ferrule located within the nut cavity. This biasing element facilitates a fluid-tight, metal to metal (or metal to plastic, or plastic to plastic) seal between the male sealing element and female sealing element.

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